ABSTRACT

A touchscreen liquid crystal display that includes a liquid crystal display including a viewing surface, a liquid crystal area containing liquid crystal located behind the viewing surface, a plurality of spaced apart elongate first electrodes located on a viewing surface side of the liquid crystal area and a plurality of spaced apart elongate second electrodes located on an opposite side of the liquid crystal area, the first and second electrodes overlapping to form an array of liquid crystal pixel elements, at least some of the first electrodes being displaceable towards the second electrodes in response to external pressure applied to the viewing surface. A control circuit is connected to the first and second electrodes for controlling the operation of the liquid crystal display. The control circuit includes (i) a driver circuit for driving the electrodes for selectively controlling a display state of the pixel elements; and (ii) a measurement circuit for detecting displacement of the at least some of the first electrodes in response to external pressure applied to the viewing surface.